

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

DETMOLIN F

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

#### Use of the substance/mixture

Pesticide

### 1.3. Details of the supplier of the safety data sheet

Company name: FROWEIN GmbH & Co. KG

Street: Am Reislebach 83

Place: D-72461 Albstadt

Telephone: +49 (0) 74 32-956 - 0

Telefax: +49 (0) 74 32-956 - 138

Responsible Department: Responsible for the safety data sheet: sds@gbk-ingelheim.de

### 1.4. Emergency telephone

**number:** INTERNATIONAL: +49 - (0) 6132 - 84463, GBK GmbH (24h - 7d/w - 365d/a)  
England and Wales: NHS Direct - 0845 4647; Scotland: NHS 24 - 08454 24 24  
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## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture according to 1272/2008/EC

Hazard categories:

Flammable liquid: Flam. Liq. 3

Aspiration hazard: Asp. Tox. 1

Hazardous to the aquatic environment: Aquatic Acute 1

Hazardous to the aquatic environment: Aquatic Chronic 3

Hazard Statements:

Flammable liquid and vapour.

May be fatal if swallowed and enters airways.

Very toxic to aquatic life.

Harmful to aquatic life with long lasting effects.

### 2.2. Label elements

#### Hazard components for labelling

Hydrocarbons, C10-C12, isoalkanes, < 2% aromatics

Signal word: Danger

Pictograms:



#### Hazard statements

- H226 Flammable liquid and vapour.  
H304 May be fatal if swallowed and enters airways.  
H400 Very toxic to aquatic life.  
H412 Harmful to aquatic life with long lasting effects.

#### Precautionary statements

- P102 Keep out of reach of children.  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P260 Do not breathe vapour.  
P262 Do not get in eyes, on skin, or on clothing.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P285 In case of inadequate ventilation wear respiratory protection.  
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.  
P331 Do NOT induce vomiting.  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

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P273 Avoid release to the environment.  
P391 Collect spillage.  
P501 Dispose of contents/container to in accordance with local and national regulations.

**2.3. Other hazards**

Vapours may form explosive mixture with air.

**SECTION 3: Composition/information on ingredients**

**3.2. Mixtures**

**Chemical characterization**

Preparation in aliphatic hydrocarbons

**Hazardous components**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
	Hydrocarbons, C10-C12, isoalkanes, < 2% aromatics			< 100 %
	923-037-2		01-2119471991-29	
	Flam. Liq. 3, Asp. Tox. 1, Aquatic Chronic 4; H226 H304 H413 EUH066			
918500-11-5	1-ethynyl-2-methylpent-2-enyl 2,2-dimethyl-3-(2-methylprop-1-enyl)cyclopropanecarboxylate			< 1 %
	259-154-4			
	Aquatic Acute 1 (M-Factor = 100), Aquatic Chronic 1 (M-Factor = 100); H400 H410			
8003-34-7	Pyrethrum			< 0,1 %
	232-319-8			
	Acute Tox. 4, Acute Tox. 4, Acute Tox. 4, Aquatic Acute 1 (M-Factor = 100), Aquatic Chronic 1 (M-Factor = 100); H302 H312 H332 H400 H410			

Full text of H and EUH statements: see section 16.

**SECTION 4: First aid measures**

**4.1. Description of first aid measures**

**General information**

Remove contaminated soaked clothing immediately.  
If you feel unwell, seek medical advice.

**After inhalation**

Move to fresh air in case of accidental inhalation of vapours or decomposition products.  
Consult a physician.

**After contact with skin**

Wash off immediately with plenty of water and soap for at least 15 minutes.  
Consult a physician.

**After contact with eyes**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.  
Consult (eye) doctor immediately.

**After ingestion**

Summon a doctor immediately.  
Do not induce vomiting.  
Immediately give plenty of water (if possible charcoal slurry).  
Induce vomiting only upon the advice of a physician.  
Attention. Beware, danger of aspiration.

**4.2. Most important symptoms and effects, both acute and delayed**

May be fatal if swallowed and enters airways.

**4.3. Indication of any immediate medical attention and special treatment needed**

Treat symptoms.

**SECTION 5: Firefighting measures**

### **5.1. Extinguishing media**

#### **Suitable extinguishing media**

Foam, carbon dioxide (CO<sub>2</sub>), dry chemical, water-spray.

#### **Unsuitable extinguishing media**

Full water jet.

### **5.2. Special hazards arising from the substance or mixture**

Fire may produce:

carbon monoxide and carbon dioxide

### **5.3. Advice for firefighters**

Wear self-contained breathing apparatus and protective suit.

#### **Additional information**

Vapours are heavier than air and spread along ground.

Do not release chemically contaminated water into drains, soil or surface waters. Sufficient measures must be taken to retain water used for extinguishing.

The vapour/air mixture is explosive, even in empty, uncleaned receptacles.

Cool containers at risk with water spray jet.

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## **SECTION 6: Accidental release measures**

### **6.1. Personal precautions, protective equipment and emergency procedures**

In case of vapour formation use respirator.

Use only explosion-proof equipment.

Ensure adequate ventilation.

Remove persons to safety.

Use personal protective clothing.

### **6.2. Environmental precautions**

Do not discharge into the drains/surface waters/ground water.

### **6.3. Methods and material for containment and cleaning up**

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder).

Shovel into suitable container for disposal.

Clean contaminated surface thoroughly.

### **6.4. Reference to other sections**

Observe protective instructions (see Sections 7 and 8).

Information for disposal see section 13.

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## **SECTION 7: Handling and storage**

### **7.1. Precautions for safe handling**

#### **Advice on safe handling**

Keep container tightly closed.

Vapours are heavier than air and spread along ground.

Avoid contact with the skin and the eyes.

In case of insufficient ventilation, especially in confined areas.

Do not breathe vapours or spray mist.

#### **Advice on protection against fire and explosion**

Do not smoke - volatile.

Keep away from heat and sources of ignition.

Take precautionary measures against static discharges.

Pay attention to anti-explosion rules.

### **7.2. Conditions for safe storage, including any incompatibilities**

#### **Requirements for storage rooms and vessels**

Keep container tightly closed in a dry, cool and well-ventilated place.

Pay attention to anti-explosion rules.

#### **Advice on storage compatibility**

Incompatible with oxidizing agents.

#### **Further information on storage conditions**

Keep away from food, drink and animal feeding stuffs.

### 7.3. Specific end use(s)

Pesticide

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Exposure limits (EH40)

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
8003-34-7	Pyrethrum (purified of sensitising lactones)	-	1		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL

### 8.2. Exposure controls

#### Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas.

#### Protective and hygiene measures

Wash hands before breaks and immediately after handling the product.

When using do not eat, drink or smoke.

Treat subsequently with skin cream.

Take off immediately all contaminated clothing.

Avoid contact with skin, eyes and clothing.

#### Eye/face protection

Tightly fitting goggles (EN 166).

Eye wash bottle with pure water (EN 15154).

#### Hand protection

Use multipurpose protective gloves (plant protection) when spreading/handling the product (EN 374).

#### Skin protection

Wear standard protective suit (plant protection) when spreading/handling the product (CE 93 0120).

Rubber apron (EN 467).

#### Respiratory protection

In case of insufficient ventilation wear suitable respiratory equipment (gas filter type A) (EN 14387).

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	clear
Odour:	Hydrocarbon-like

#### Changes in the physical state

Initial boiling point and boiling range:	140 °C	*)
Flash point:	35 °C	*)
Lower explosion limits:	0,6 vol. %	*)
Upper explosion limits:	7,0vol. %	*)
Ignition temperature:	> 200 °C	*)
Vapour pressure:	2 hPa	
(at 20 °C)		
Vapour pressure:	< 5 hPa	
(at 25 °C)		
Density (at 20 °C):	0,751 g/cm <sup>3</sup>	
Water solubility:	Immiscible	
(at 20 °C)		
Viscosity / dynamic:	0,8 mPa·s	
(at 20 °C)		
Viscosity / kinematic:	< 20,5 mm <sup>2</sup> /s	
(at 40 °C)		

Solvent content: > 95%

### **9.2. Other information**

\*) Hydrocarbons, C10-C12, isoalkanes, < 2% aromatics

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## **SECTION 10: Stability and reactivity**

### **10.1. Reactivity**

No decomposition if stored and applied as directed.

### **10.2. Chemical stability**

Stable under normal conditions.

### **10.3. Possibility of hazardous reactions**

Reactions with oxidizing agents.

### **10.4. Conditions to avoid**

To avoid thermal decomposition, do not overheat.

Vapour/air mixtures are explosive at intensive warming.

Heating can release vapours which can be ignited.

### **10.5. Incompatible materials**

oxidizing agents

### **10.6. Hazardous decomposition products**

Carbon monoxide and carbon dioxide

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## **SECTION 11: Toxicological information**

### **11.1. Information on toxicological effects**

#### **Acute toxicity**

Based on available data, the classification criteria are not met.

No toxicological data available.

#### **Irritation and corrosivity**

Based on available data, the classification criteria are not met.

#### **Sensitising effects**

Based on available data, the classification criteria are not met.

#### **STOT-single exposure**

Based on available data, the classification criteria are not met.

#### **Severe effects after repeated or prolonged exposure**

Based on available data, the classification criteria are not met.

#### **Carcinogenic/mutagenic/toxic effects for reproduction**

Based on available data, the classification criteria are not met.

#### **Aspiration hazard**

May be fatal if swallowed and enters airways.

#### **Additional information on tests**

Classification in compliance with the assessment procedure specified in the Regulation (EC) no 1272/2008.

### **Practical experience**

#### **Other observations**

Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.

High concentration of vapours may cause irritation to eyes and respiratory system and produce narcotic effects.

Occasionally literature hints report that contact with Pyrethrum compounds may trigger hay fever similar reactions in particularly sensible persons.

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## **SECTION 12: Ecological information**

### **12.1. Toxicity**

Ecological data are not available.

Very toxic to aquatic organisms. Harmful to aquatic life with long lasting effects.

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1-ethynyl-2-methylpent-2-enyl 2,2-dimethyl-3-(2-methylprop-1-enyl)cyclopropanecarboxylate

LC50/Fish/96 h = 0,0017 mg/l

EC50/Daphnia/48 h = 0,02 mg/l

EC50/algae/72 h = 0,2 mg/l

Pyrethrum

LC50/Oncorhynchus mykiss/96 h = 0,005 mg/l

LC50/Lepomis macrochirus/96 h = 0,01 mg/l

LC50/Cyprinodon variegatus/96 h = 0,016 mg/l

EC50/Daphnia magna/48 h = 0,012 mg/l

**12.2. Persistence and degradability**

No data available.

**12.3. Bioaccumulative potential**

No data available.

**12.4. Mobility in soil**

No data available.

**12.5. Results of PBT and vPvB assessment**

According to Regulation (EC) No 1907/2006 (REACH) none of the substances, contained in this product are a PBT / vPvB substance.

**12.6. Other adverse effects**

Severe hazard to waters

**Further information**

Do not flush into surface water or sanitary sewer system.

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

**Advice on disposal**

Where possible recycling is preferred to disposal.

Can be incinerated, when in compliance with local regulations.

**Waste disposal number of waste from residues/unused products**

200119 MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS; separately collected fractions (except 15 01); pesticides  
Classified as hazardous waste.

**Waste disposal number of contaminated packaging**

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances  
Classified as hazardous waste.

**Contaminated packaging**

Re-using the polluted packaging materials is not allowed.

Contaminated packagings are to be treated like the product itself.

**SECTION 14: Transport information**

**Land transport (ADR/RID)**

**14.1. UN number:**

UN 3295

**14.2. UN proper shipping name:**

HYDROCARBONS, LIQUID, N.O.S.

**14.3. Transport hazard class(es):**

3

**14.4. Packing group:**

III

Hazard label:

3



Classification code:

F1

Limited quantity:

5 L / 30 kg

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Product code: 00434-0009

Excepted quantity: E1  
 Transport category: 3  
 Hazard No: 30  
 Tunnel restriction code: D/E

**Inland waterways transport (ADN)**

**14.1. UN number:** UN 3295  
**14.2. UN proper shipping name:** HYDROCARBONS, LIQUID, N.O.S.  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** III  
 Hazard label: 3



Classification code: F1  
 Limited quantity: 5 L / 30 kg  
 Excepted quantity: E1

**Marine transport (IMDG)**

**14.1. UN number:** UN 3295  
**14.2. UN proper shipping name:** HYDROCARBONS, LIQUID, N.O.S. (1-ethynyl-2-methylpent-2-enyl 2,2-dimethyl-3-(2-methylprop-1-enyl)cyclopropanecarboxylate)  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** III  
 Hazard label: 3



Marine pollutant: Yes  
 Limited quantity: 5 L / 30 kg  
 Excepted quantity: E1  
 EmS: F-E, S-D

**Air transport (ICAO-TI/IATA-DGR)**

**14.1. UN number:** UN 3295  
**14.2. UN proper shipping name:** HYDROCARBONS, LIQUID, N.O.S.  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** III  
 Hazard label: 3



Limited quantity Passenger: 10 L  
 Passenger LQ: Y344  
 Excepted quantity: E1

IATA-packing instructions - Passenger: 355  
 IATA-max. quantity - Passenger: 60 L  
 IATA-packing instructions - Cargo: 366  
 IATA-max. quantity - Cargo: 220 L

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: yes



#### **14.6. Special precautions for user**

Handle in accordance with good industrial hygiene and safety practice.

#### **14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**

The transport takes place only in approved and appropriate packaging.

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### **SECTION 15: Regulatory information**

#### **15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

##### **EU regulatory information**

2004/42/EC (VOC): < 100 %

##### **National regulatory information**

Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water contaminating class (D): 3 - highly water contaminating

Biocide registry number: BAuA-Reg. Nr. N-51607

#### **15.2. Chemical safety assessment**

For this substance a chemical safety assessment has not been carried out.

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### **SECTION 16: Other information**

#### **Abbreviations and acronyms**

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route

RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses

ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure

IMDG = International Maritime Code for Dangerous Goods

IATA/ICAO = International Air Transport Association / International Civil Aviation Organization

MARPOL = International Convention for the Prevention of Pollution from Ships

IBC-Code = International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

REACH = Registration, Evaluation, Authorization and Restriction of Chemicals

CAS = Chemical Abstract Service

EN = European norm

ISO = International Organization for Standardization

DIN = Deutsche Industrie Norm

PBT = Persistent Bioaccumulative and Toxic

vPvB = Very Persistent and very Bio-accumulative

LD = Lethal dose

LC = Lethal concentration

EC = Effect concentration

IC = Median immobilisation concentration or median inhibitory concentration

#### **Relevant H and EUH statements (number and full text)**

H226 Flammable liquid and vapour.

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H312 Harmful in contact with skin.

H332 Harmful if inhaled.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

H413 May cause long lasting harmful effects to aquatic life.

EUH066 Repeated exposure may cause skin dryness or cracking.

#### **Further Information**

Data of items 4 to 8, as well as 10 to 12, do partly not refer to the use and the regular employing of the product (in this sense consult information on use and on product), but to liberation of major amounts in case of accidents and irregularities.



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The information describes exclusively the safety requirements for the product(s) and is based on the present level of our knowledge.

The delivery specifications are contained in the corresponding product sheet.

This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations.

(n.a. = not applicable; n.d. = not determined)

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*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*